

CLAIMS

1. A display apparatus comprising:

adjustment means for adjusting a plurality of setting values related to image display; and

mode display means capable of changing over a plurality of display modes which differ in the setting values adjusted by said adjustment means,

wherein said mode display means has a display mode suited to a bright external environment.

2. A display apparatus according to claim 1, wherein said plurality of setting values related to image display include setting values of at least two of brightness, contrast, contour enhancement and tint of an image plane.

3. A display apparatus according to claim 2, wherein, in said display mode suited to a bright external environment, the setting values are combined such that the brightness is bright, the contrast is strong and the contour enhancement is strong.

4. A display apparatus according to claim 1, further comprising selecting means for selecting, from among the plurality of display modes, said display mode suited to a bright external environment, said selecting means being arranged to be manually operated.

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5. A display apparatus according to claim 1, further comprising storage means for storing a display mode having in combination the plurality of setting values related to image display which are effective before a power supply is turned off, wherein, when the power supply is turned on, said adjustment means adjusts an image display state to the display mode stored by said storage means.

6. A display apparatus according to claim 1, further comprising external light quantity detecting means for detecting a quantity of light coming from outside, wherein said adjustment means selects, according to the external light quantity detected by said external light quantity detecting means, a display mode for which the setting values related to image display of at least two of brightness, contrast, contour enhancement and tint of an image plane are combined, and adjusts an image display state to the display mode selected.

7. A display apparatus according to claim 1, wherein said display apparatus is adapted for a head-mounted display apparatus which is to be mounted on the head of a user thereof.

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8. A display method for displaying an image on an image plane, wherein a display state of the image displayed on the image plane is adjusted to a display

mode for which a plurality of setting values related to image display suited to a bright external environment are combined.

9. A storage medium having stored therein a program to be executed by a computer which controls a display apparatus in displaying an image on an image plane, wherein said program has a display mode for which a plurality of setting values related to image display suited to a bright external environment are combined and includes a procedure for adjusting to said display mode a display state of the image displayed on the image plane.

10. A display apparatus of head-mounted type for displaying an image in a state of being mounted on the head of a user in a position near to the eyes of the user, comprising:

 a display part arranged to display an image;
 adjustment means for adjusting a plurality of setting values related to a display state of an image displayed by said display part;

 mode display means for changing over a plurality of display modes which differ in the setting values adjusted by said adjustment means, and

 control means for, when brightness of an external environment is equal to or more than a predetermined value, selecting a predetermined display mode suited to a bright external environment in

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preference to a display mode selected by said mode display means.

11. A display apparatus according to claim 10, wherein said plurality of setting values include setting values of at least two of brightness, contrast, contour enhancement and tint.

12. A display apparatus according to claim 10, wherein said predetermined display mode is a mode for forcibly strengthening brightness, contrast and contour enhancement of an image plane as compared with other display modes.

13. A display apparatus comprising:
left-eye display means for displaying an image for a left eye;
right-eye display means for displaying an image for a right eye;
detecting means for detecting brightness of surroundings of said display apparatus; and
control means for varying a video image displaying state of said left-eye display means and a video image displaying state of said right-eye display means independently of each other according to information on the brightness detected by said detecting means.

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14. A display apparatus according to claim 13, wherein said detecting means includes a plurality of detecting elements and detects the brightness of surroundings of said left-eye display means and the brightness of surroundings of said right-eye display means by using said plurality of detecting elements, and said control means separately controls luminance of said left-eye display means and luminance of said right-eye display means according to information on the brightness detected by said plurality of detecting elements.

15. A display apparatus according to claim 13, wherein said display apparatus is a head-mounted display apparatus to be mounted on the head of a user, and said detecting means detects a quantity of light incident on said head-mounted display apparatus through a gap between the face of the user and said head-mounted display apparatus.

16. A display apparatus according to claim 15, wherein said detecting means is disposed around a display window of each of said left-eye display means and said right-eye display means in a state of being directed toward the face of the user, and detects the brightness of external light coming through a gap between each of said left-eye display means and said right-eye display means and the face of the user.

17. A display apparatus according to claim 16, wherein said left-eye display means and said right-eye display means are respectively provided with left and right illumination means for determining the display brightness of an image plane, and said control means varies the brightness of said left illumination means and the brightness of said right illumination means independently of each other.

18. A display apparatus according to claim 17, wherein each of said left-eye display means and said right-eye display means is provided with a liquid crystal display part and a back light for illuminating said liquid crystal display part, and said control means adjusts the brightness of said back light of said left-eye display means and the brightness of said back light of said right-eye display means independently of each other.